Epidemiologic Profile of HIV and AIDS - Upstate Public Health Region 2020

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Surveillance, Assessment, and Evaluation

Bureau of
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Health and Environmental Control

Table of Contents

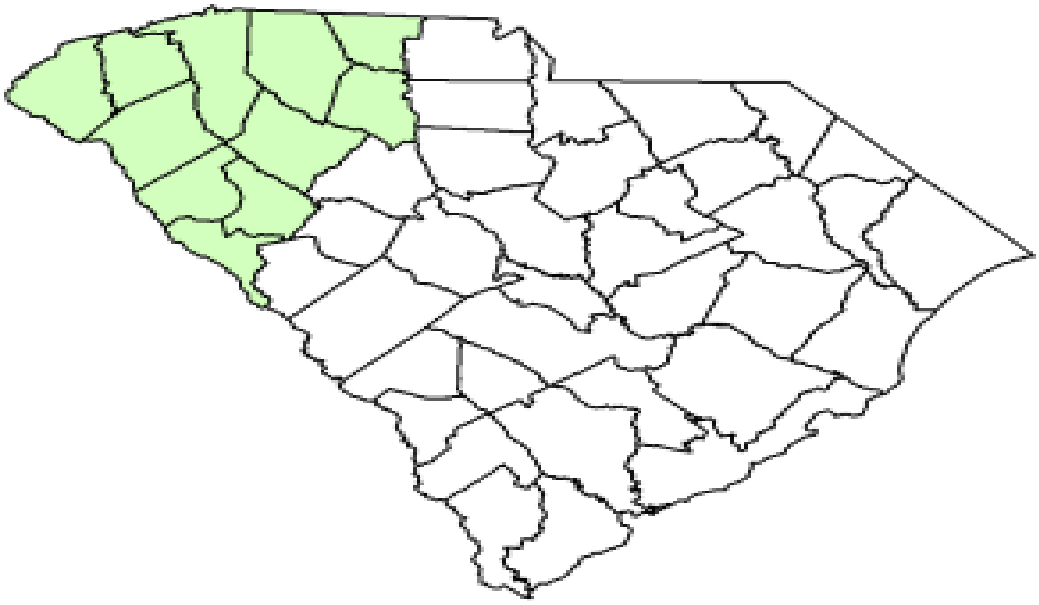
List of Figures

Executive Summary

This report provides the public health data for calendar year 2019. Data in this report presents the trends and characteristics related to Human Immunodeficiency Virus (HIV), as well as other sexually transmitted infections (STI), and the impact on the residents of the Upstate PHR. Types of data points discussed include: incidence (the number of new cases of HIV diagnosed in 2019), prevalence (the number of people living with HIV/AIDS and the people newly diagnosed), and rates (a measure of risk to allow for comparison of groups). Additionally, continuum of care is displayed in this report as: received any care (measured as those who received a CD4 or viral load test result in 2019), retained in care (those who had at least two CD4 or viral load test results at least three months apart in 2019), and virally suppressed (those who had a viral load of less than or equal to 200 copies per milliliter at their most recent test in 2019).

Since the HIV/AIDS epidemic began almost 40 years ago, more than ten thousand persons have died in South Carolina due to HIV-related causes. The use of Highly active Antiretroviral Therapy (HAART) since 1995 has shifted HIV/AIDS from a terminal diagnosis to a chronic condition, such as diabetes or hypertension, and thousands are currently living with HIV/AIDS in South Carolina. Currently, there is a decline in the number of deaths among people living with HIV (PLWHA); however, the number of PLWHA continues to increase due to individuals living longer and newly identified cases.

South Carolina is divided into four Public Health Regions. The Upstate region, located in the upper western areas of the state, consists of the following counties: Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union.



Recent data for the Upstate Public Health Region (PHR) in 2019 illustrates the disparity that continues to exist between the African American community and other race/ethnicities. African American men are more likely to be diagnosed and live with HIV in the Upstate than any other race/ethnicity and sex at birth combination in the region. Fifty-eight percent of newly diagnosed cases of HIV are African Americans and 80% of new cases are men, in the Upstate PHR. Fifty-eight percent of PLWHA are African American and 75% of PLWHA are men.

New cases of HIV primarily occur between the age of 20-49 (80%). Twenty-two percent of new cases of HIV occur in the Upstate PHR. Greenville County has the greatest number of new cases (134,39%), however, Union County has the highest rate in the region, with a much smaller case count (18.3 per 100,000).

In 2019, 89% of PLWHA were above 30 years of age in the Upstate PHR. Twenty percent of the state's PLWHA are in the Upstate PHR; and Greenville County has the greatest number (1,703, 42%) of PLWHA. Although Greenville County has the highest count, Greenwood County has the highest prevalence rate in the Upstate (392.6 per 100,000).

For PLWHA to remain healthy and to reduce the risk of transmitting HIV to others, it is important that they receive HIV medical care soon after diagnosis and remain in care to achieve viral suppression. On average, 91% of people newly diagnosed with HIV are successfully linked to care within three months or less, in the Upstate PHR. However, retention in care has been less successful, with only 60% of PLWHA remaining in care as of 2019. For PLWHA in the Upstate PHR, just 68% have achieved viral suppression.

Other Sexually Transmitted Infections (STIs) are also of concern in the Upstate PHR. In 2019, more than 8,000 cases of Chlamydia, 3,846 cases of Gonorrhea, and more than 320 cases of Syphilis were reported in the Upstate PHR. Among all these Sexually Transmitted Infections (STIs) including HIV, the African American community is most impacted, with rates exceeding five times that of other race/ethnicities for some STI's.

Ending the HIV Epidemic (EHE) National Plan and the Four Pillars

To end the HIV epidemic, the U.S. Department of Health and Human Services (HHS) has proposed a plan to reduce new HIV infections in the United States. The Ending the HIV Epidemic: A Plan for America (EHE) initiative will implement high-impact HIV prevention, care, treatment, and outbreak response strategies in 48 counties, the District of Columbia, San Juan, Puerto Rico, and 7 states with a substantial rural HIV burden, the state of South Carolina included. The goal of the initiative is to reduce new HIV infections by 75% in 5 years, and by 90% in 10 years.

Efforts will focus on four pillars to obtain the intended reductions by 2030:

- DIAGNOSE all individuals with HIV as early as possible after infection;
- TREAT HIV infection rapidly after diagnosis and effectively in all people who have HIV, to help them get and stay virally suppressed;
- PREVENT HIV infections using proven prevention interventions, including most notably PrEP; and
- RESPOND rapidly to potential HIV outbreaks to get prevention and treatment services to people who need them.

Upstate Public Health Region Overview

Twenty-nine percent (n=1,509,225) of South Carolina residents live in the Upstate PHR. As of December 31, 2019, there were 6,822 people living with HIV in the Upstate PHR, giving the region the highest number and proportion (33%) of PLWHA in South Carolina. The Upstate PHR has the second highest rate of PLWHA per 100,000 population (457.1). Thirty percent of people newly diagnosed with HIV in 2018-2019 live in the Upstate PHR.

The Upstate PHR has slightly more females than males and Caucasians are over three times that of African Americans in the Upstate PHR. Also, Caucasians vastly outnumber the Hispanic population in the Upstate PHR. Further, demographic information can be found at the following website: https://www.census.gov/quickfacts/fact/table/SC/HEA775219.

EHE Pillar 1: Diagnose All People with HIV as Early as Possible After Infection

Newly Diagnosed Cases of HIV by Sex at birth

In the Upstate Public Health Region (PHR), 52% of residents are women, and 48% are men. Men in the Upstate PHR are disproportionately affected by HIV with 80% of new diagnoses in 2018-2019. Figure 1 displays the number of newly diagnosed cases of HIV by sex at birth in the Upstate PHR.

Figure 1: Newly Diagnosed Cases of HIV by Sex at birth, Upstate PHR (2019)

	Upstate PHR Total Population, 2019		Upstate PHR Total Newly Reported HIV Diagnosis, 2018-2019	
Sex at birth	Count	%	Count	%
Men	732,446	49%	277	80%
Women	776,779	51%	71	20%
Total	1,509,225	100%	348	100%

Newly Diagnosed Cases of HIV by Race/Ethnicity

African Americans in the Upstate PHR are disproportionately impacted by HIV. African Americans comprise approximately 19% of the Upstate PHR's population, yet 58% of newly diagnosed cases were African American (Figure 2).

Figure 2: Newly Diagnosed Cases of HIV by Race/Ethnicity, Upstate PHR (2019)

	Upstate PHR Total Population, 2019		Upstate PHR Total Reported HIV Diagnosis, 2018-2019	
Race/Ethnicity	Count	%	Count	%
Caucasian	1,072,794	71%	95	29%
AA	282,770	19%	189	58%
Hispanic	102,363	7%	33	10%
Other	51,298	3%	9	3%
Total[1]	1,509,225	100%	326[1]	100%

A small portion of newly diagnosed cases did not report race.

Newly Diagnosed Cases of HIV by Age

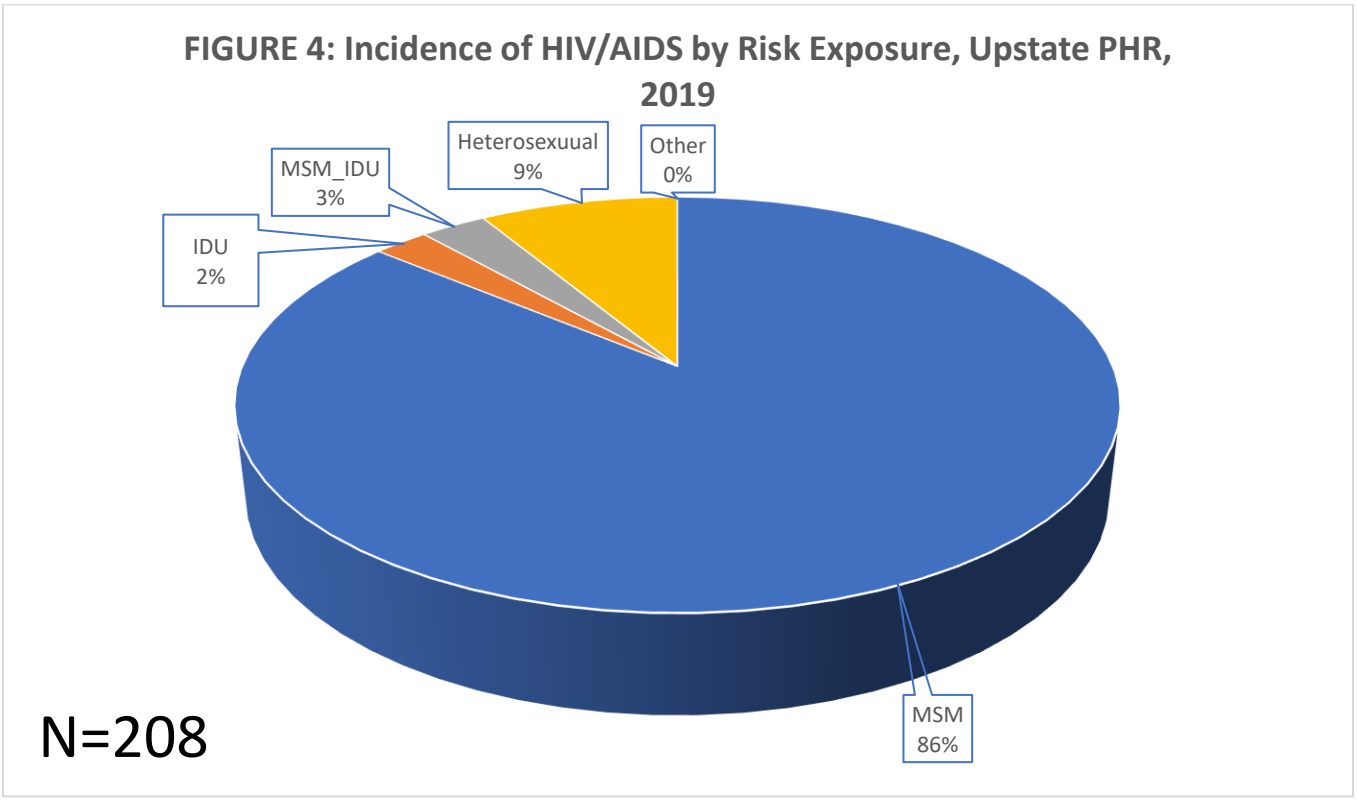
For newly diagnosed cases, there is a disproportionate impact by age between the ages of 20 and 49. This age group makes up 80% of newly diagnosed cases; with 40% occurring in both groups (Figure 3).

Figure 3: Newly Diagnosed Cases of HIV by Age, Upstate PHR (2019)

Years of Age	Count	%
<19	18	5%
20-29	138	40%
30-49	138	40%
50+	54	15%
Total	348	100%

Newly Diagnosed Cases of HIV by Risk Exposure

Figure 4 shows the risk exposure for new cases of HIV in the Upstate PHR. Forty percent of new cases of HIV in the Upstate PHR have an unreported risk exposure (n=140). Of all cases in the Upstate with a reported risk (n=208), men who have sex with men (MSM) represents the highest proportion (86%) followed by heterosexual contact (9%). Injection drug use and MSM_IDU exposures are less likely to be risks for transmission.



Newly Diagnosed Cases of HIV by County

Greenville County had the highest number of newly diagnosed cases in 2018-2019 (134). Union County has the highest rate of new infections with 18.3 per 100,000 (Figure 5). Of 12 Upstate Counties, six counties are above the average incidence rate (13.4 per 100,000): Cherokee, Greenville, Greenwood, Laurens, Pickens, and Union (Figure 5).

Figure 5: Newly Diagnosed Cases of HIV by County, Upstate PHR (2019)

County	Count	%	Rate (per 100,000)
Abbeville	<5	<1%	4.1
Anderson	39	11%	9.6
Cherokee	15	4%	13.1
Greenville	134	39%	12.9
Greenwood	19	5%	13.4
Laurens	15	4%	11.2
McCormick	<5	<1%	5.3
Oconee	15	4%	9.5
Pickens	33	9%	13.2
Spartanburg	65	19%	10.2
Union	10	3%	18.3
Total	348	100%	N/A
Average	32	N/A	11.0

Counties with less than 5 new cases of HIV do not have their counts displayed due to a CDC small cell suppression rule, of not reporting counts <5.

EHE Pillar 2: Treat the Infection Rapidly and Effectively to Achieve Sustained Viral Suppression

Persons Living with Diagnosed HIV Infection of All Stages by Sex at birth

Men in the Upstate PHR are disproportionately affected by HIV with 75% of PLWHA in 2019 being men (Figure 6).

Figure 6: People Living with HIV by Sex at birth, Upstate PHR (2019)

	Upstate PHR Total Population, 2019		Upstate PHR Total Reported Living With HIV, 2019	
Sex at birth	Count	%	Count	%
Men	732,446	49%	3,041	75%
Women	776,779	51%	1,001	25%
Total	1,509,225	100%	4,042	100%

Persons Living with Diagnosed HIV Infection of All Stages by Race/Ethnicity

African Americans in the Upstate PHR are disproportionately impacted by HIV. African Americans comprise approximately 19% of the Upstate PHR's population, yet 58% PLWHA were African American (Figure 7). The African American population has almost two times the number of people living with HIV than Caucasian men and women and almost five times the number of Hispanic men and women.

Figure 7: People Living with HIV by Race, Upstate PHR (2019)

	Upstate PHR Total Population, 2019		Upstate PHR Total Reported HIV Diagnosis, 2019	
Race/Ethnicity	Count	%	Count	%
Caucasian	1,072,794	71%	1,316	33%
AA	282,770	19%	2,330	58%
Hispanic	102,363	7%	270	7%
Other	51,298	3%	94	2%
Total[1]	1,509,225	100%	4,010	100%

A small portion of newly diagnosed cases did not report race.

Persons Living with Diagnosed HIV Infection of All Stages by Age

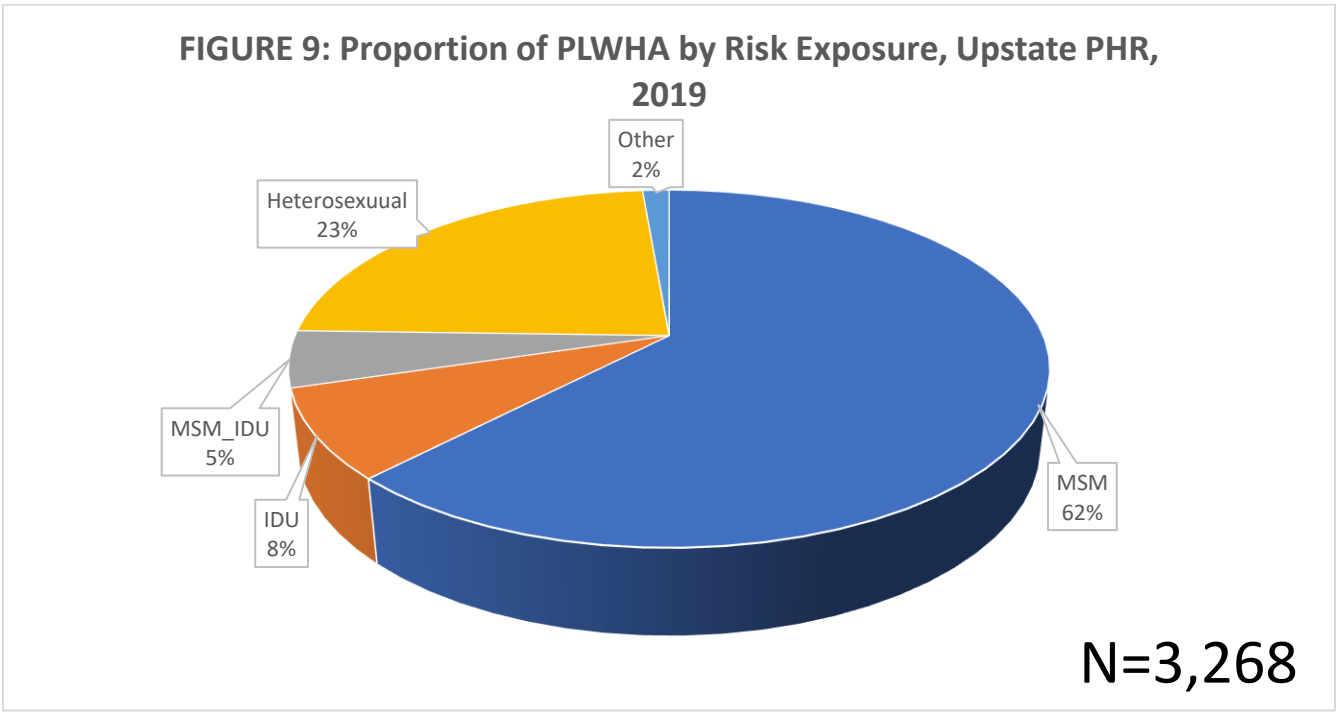
In 2019, half (50%) of PLWHA in the Upstate PHR were 50 years of age or older (Figure 8). Forty-nine percent were between the ages of 20 and 49. Individuals above the age of 30 made up the largest proportion of PLWHA in the Upstate PHR (89%).

Figure 8: People Living with HIV by Age, Upstate PHR (2019)

Years of Age	Count	%
<19	38	1%
20-29	421	10%
30-49	1,592	39%
50+	1,997	50%
Total	4,042	100%

Persons Living with Diagnosed HIV Infection of All Stages by Risk Exposure

Figure 9 shows the risk of exposure for PLWHA in the Upstate PHR. Nineteen percent of PLWHA in the Upstate Public Health Region have an unreported mode of exposure (n= 774). Of cases with a reported risk, the category of men who have sex with men (MSM) represents the highest proportion (62%) of individuals living with HIV. Heterosexual contact is the 2nd highest prevalent group of PLWHA (23%). Injection drug use (IDU), MSM & IDU, and other risk of transmission are much less likely than the more prominent modes of transmission in the Upstate PHR (15%).



Persons Living with Diagnosed HIV Infection of All Stages by County

Of the 4,042 PLWHA in the Upstate PHR, Greenville County has the highest count (1,703) and proportion (42%) among counties, followed by Spartanburg County with 850 PLWHA (21%). Greenwood County has the highest rate of PLWHA (392.6 per 100,000), followed by Laurens County (349.7 per 100,000). The average prevalence rate in the Upstate Counties is 253.6 cases per 100,000. Of the 12 counties, four are above the average prevalence rate of the Upstate PHR: Greenville, Greenwood, Laurens, and McCormick (Figure 10).

Figure 10: People Living with HIV by County, Upstate PHR (2019)

County	Count	%	Rate
Abbeville	51	1%	207.9
Anderson	400	10%	197.5
Cherokee	109	2%	190.2
Greenville	1,703	42%	325.3
Greenwood	278	7%	392.6
Laurens	236	6%	349.7
McCormick	28	1%	295.9
Oconee	113	3%	142.0
Pickens	202	5%	159.2
Spartanburg	850	21%	265.8
Union	72	2%	263.6
Total	4,042	100%	N/A
Average	367	N/A	253.6

Treatment & Retention in Care for Persons Living with HIV of All Stages

Figure 11 displays the counts and percentages by county for persons living with HIV/AIDS related to care status: 1) received care; 2) retained in care; and 3) viral suppression achieved. The HIV Continuum of Care is a metrics developed by the Center for Disease Control and Prevention (CDC) as a way to monitor and report on the objectives outlined in the National HIV/AIDS Strategy for the United States, specifically: linked to care, received any care, retained in care, and viral suppression.

Received Care

Individuals who received care are those who received a CD4 or viral load test result in 2019. Figure 11 displays the received care status by county in the Upstate PHR. Of the 11 Upstate Counties, two (McCormick and Oconee) had less than 70% of PLWHA receive care. The remaining nine counties had over 70% of PLWHA to receive care in 2019, with three of those nine having over 80% receiving care. The county with the largest number of diagnosed PLWHA is Greenville with a count of 1,706. Of these PLWHA, 74% received care in 2019. In the Upstate PHR, 77% on average received care in 2019.

Retention in Care

Individuals who had at least two CD4 or viral load test results at least three months apart during 2019 were identified as retained in care. Figure 11 also displays the retention in care statistics for all counties in the Upstate PHR. Of the 11 counties, 59% of PLWHA were retained in care in 2019. Six counties in the Upstate PHR had less than 60% of PLWHA retained in care (Abbeville, Greenville, Greenwood, Laurens, McCormick, and Oconee). The highest retention in care county was Union with 74%. The three counties with the highest number of PLWHA (Greenville, Spartanburg, and Anderson, in descending order) had 64% or less PLWHA retained in care in 2019.

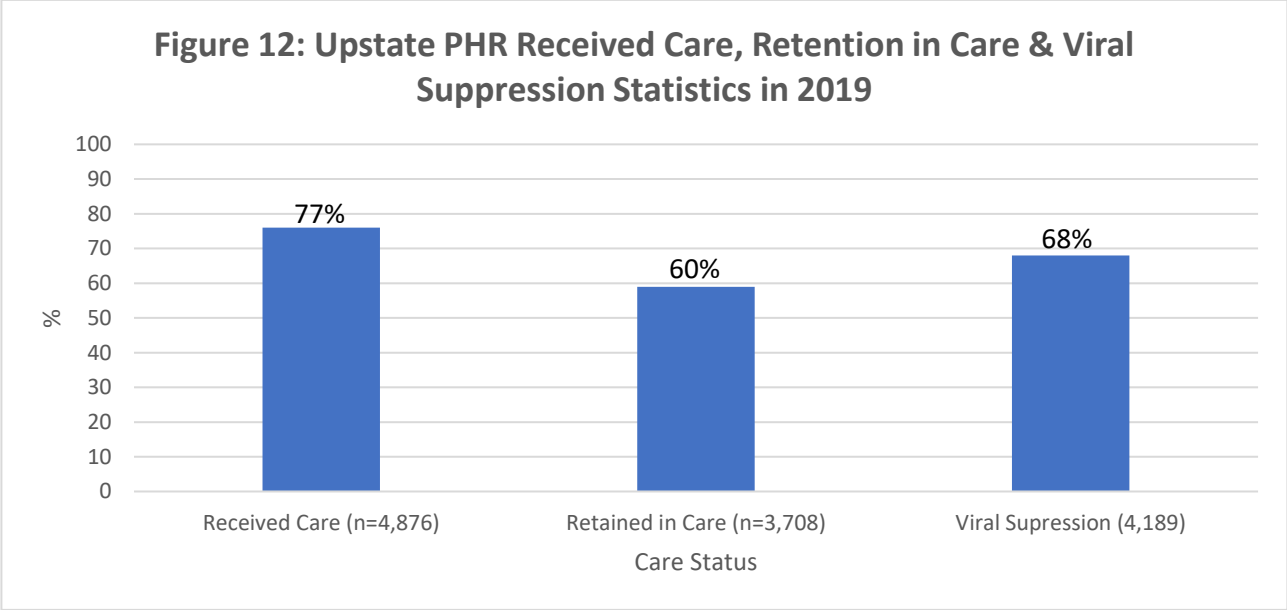
Viral Suppression

Individuals who had a viral load of less than or equal to 200 copies per milliliter at their most recent test in 2019 were considered to be virally suppressed. To obtain viral suppression means the virus is at an undetectable level and risk of transmission is greatly reduced. Figure 11 displays the percentage of PLWHA that achieved viral suppression in 2019 for all counties in the Upstate PHR. For most counties (10 of 11) viral suppression is achieved at 60% or higher in PLWHA. McCormick is the only county in the Upstate PHR to not achieve greater than 60% viral suppression in PLWHA in their county. In the Upstate PHR, on average, 68% of PLWHA achieved viral suppression in 2019.

Figure 11: Upstate PHR Received Care, Retention in Care & Viral Suppression Statistics (2019)

County	Total Diagnosed PLWHA	Received Care[1]	Retention in Care[2]	Viral Suppression Achieved[3]
Abbeville	51	86%	57%	76%
Anderson	400	76%	62%	68%
Cherokee	107	79%	69%	70%
Greenville	1,706	74%	56%	66%
Greenwood	273	74%	56%	63%
Laurens	237	81%	59%	73%
McCormick	29	69%	52%	55%
Oconee	114	69%	54%	62%
Pickens	202	76%	60%	70%
Spartanburg	848	74%	64%	67%
Union	73	88%	74%	81%
Total	4,040	N/A	N/A	N/A
Average	367	77%	60%	68%

[1]An individual with greater than or equal to 1 CD4 or viral load test within 3 months after HIV diagnosis in 2019.
[2]An Individual with at least 1 CD4 or viral load test result during 2019.
[3]An individual who had a viral load of less than or equal to 200 copies per milliliter at most recent test in 2019.



Linkage to Care for New Diagnoses of HIV

The linkage to care for new diagnoses of HIV is critical to reducing the advancement of the disease. As a public health measure, it will serve as a vital role in reducing the risk of the virus being transmitted to others. Persons confirmed as newly diagnosed are advised to enter care and begin treatment immediately to slow the progression of this disease. In the Upstate PHR, linkage to care efforts has improved over the years, with various programs and outlets for linkage to care.

Figure 13 displays the percentage of new diagnoses that in 2019 and the amount of time to get newly diagnosed persons into care. On average in the Upstate PHR, 72% of persons newly diagnosed are linked to care within one-month and 97% are linked to care within three months. Linkage to care is a methodology developed by CDC, it defines linked to care if at least one viral load test is completed since the initial diagnosis.

Figure 13: Upstate PHR, HIV Incidence Linkage to Care Within 1 and 3 Months (2019)

County	Number of new HIV Diagnoses	Linked within 1 Month (%)	Linked within 3 Months (%)
Abbeville	<5	N/A	N/A
Anderson	24	67%	100%
Cherokee	5	20%	60%
Greenville	68	68%	93%
Greenwood	15	73%	93%
Laurens	11	64%	100%
McCormick	<5	N/A	N/A
Oconee	5	80%	80%
Pickens	18	89%	100%
Spartanburg	24	72%	93%
Union	<5	N/A	N/A
Total	170	N/A	N/A
Average	21	67%	90%

Counties with less than 5 new cases of HIV do not have their counts displayed due to a CDC small cell suppression rule, of not reporting counts <5.

EHE Pillar 3: Prevent New HIV Transmissions by Using Proven Interventions

PrEP Eligible estimates for SC

Pillar 3 includes proven interventions such as pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs, where allowable by law). Pre-exposure prophylaxis (PrEP) is a pill taken daily by people who do not have HIV but who are at very high risk for getting HIV. It is highly effective in preventing HIV when taken daily. Based on the most recently available data, CDC estimated in 2018 that there were approximately 10,249 persons in South Carolina who had indications for PrEP. Of the 10,000+ persons, only 1,198 (11.7%) were prescribed PrEP medication.[1]

EHE Pillar 4: Respond Quickly to Potential HIV Outbreaks

SC HIV Cluster Outbreak Detection and Response Summary

Responding quickly to potential HIV outbreaks will get needed prevention and treatment services to people who need them. HIV cluster detection and response (CDR) is an approach that uses data routinely reported to health departments to identify networks of rapid HIV transmission. This information can then be used to identify gaps in prevention and care services that contribute to rapid transmission and ensure that services reach the populations that need them the most.

A cluster or outbreak indicates **gaps in our prevention and care services** that need to be addressed to remove barriers to services and stop transmission. To close this gap, health departments can work to:

-- Understand barriers to care and prevention	-- Provide needed services in targeted areas
-- Develop approaches to overcome barriers	-- Increase testing and outreach in those areas

Other Sexually Transmitted Infections

Although this report has primarily focused on the HIV epidemic in South Carolina, other sexually transmitted infections (STIs) still impact South Carolina at a high level. STIs such as Chlamydia, Gonorrhea, and Syphilis have large incidence rates in South Carolina, impacting the health of many communities. The following data represents incidence rates of the Chlamydia, Gonorrhea, and Syphilis in the Upstate PHR. The need to continue to improve prevention efforts and raise attention to these STIs is still necessary to improve sexual health in South Carolina.

Chlamydia

Figure 14 displays the total cases of Chlamydia by county as well as the rate per 100,000 based on that county's population. Among the counties in the Upstate PHR, Greenville County has the largest number of cases (3,026). However, Union County has the greatest rate among all counties (907.9 per 100,000) with Cherokee County having the second-highest rate (781.9 per 100,000), but with a much smaller total case count (448). Three counties exceed 1,000 documented cases of Chlamydia in 2019 in the Upstate PHR (Anderson, Greenville, and Spartanburg).

Figure 14: Upstate PHR New Cases of Chlamydia by County (2019)

County	Count	Rate per 100,000
Abbeville	127	517.8
Anderson	1,188	586.5
Cherokee	448	781.9
Greenville	3,026	577.9
Greenwood	472	666.6
Laurens	411	609.0
McCormick	44	465.0
Oconee	325	408.5
Pickens	673	530.4
Spartanburg	1,917	599.5
Union	248	907.9
Total	8,879	N/A
Average	807	604.6

Chlamydia by Sex at birth

Figure 15 displays data on the rate of Chlamydia by county and by sex at birth. Within the Upstate PHR there is an apparent disparity of cases based on sex at birth. Women in all 11 counties in the Upstate PHR have a higher rate than men. Further, the women's' rate is above 600 per 100,000 in all counties except for Oconee. In Figure 16, a pie chart shows throughout the Upstate PHR that more cases are occurring among women (66%) than among men. Women have almost two times as many cases of Chlamydia diagnoses compared with the diagnoses among men.

Figure 15: Rate of Chlamydia per 100,000 in the Upstate PHR by Sex at birth, 2019

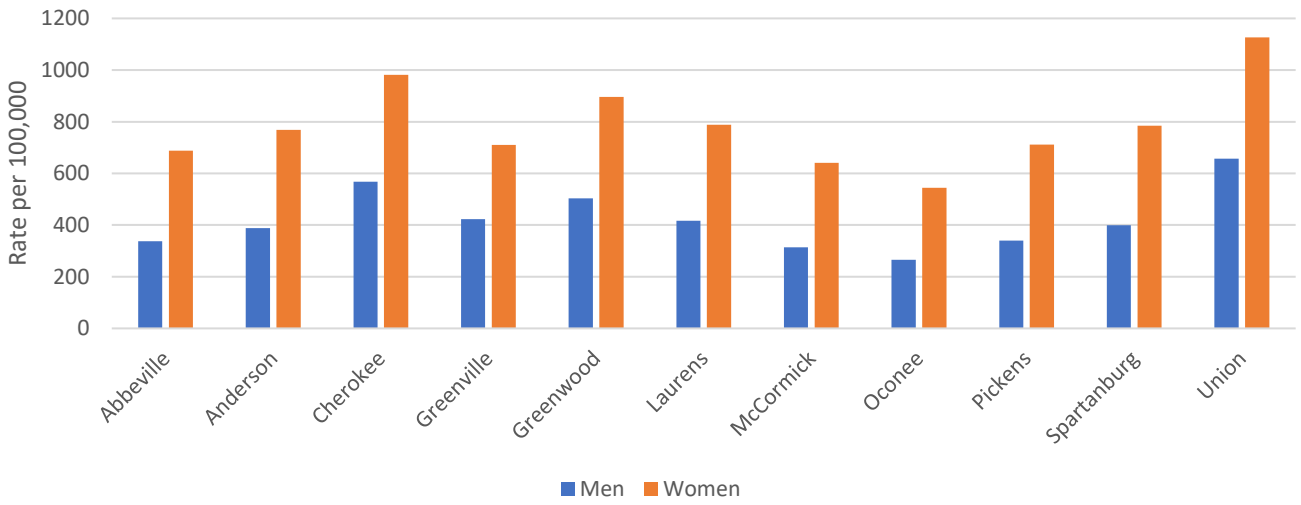
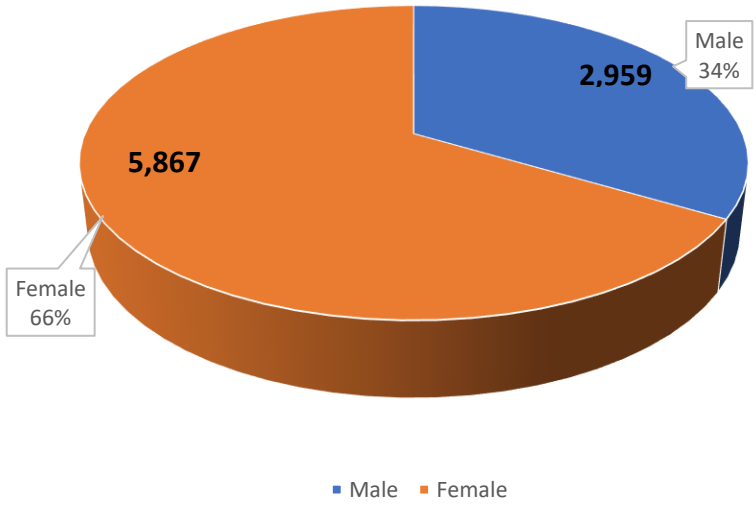


Figure 16: Chlamydia Cases in the Upstate PHR by Sex at birth, 2019



Chlamydia by Race/Ethnicity

Figure 17 shows the average rate per 100,000 cases of Chlamydia by race/ethnicity in the Upstate PHR. The graph below details a large disparity relative to race/ethnicity. African Americans have almost six times the rate of Chlamydia cases than any other race/ethnicity in the Upstate. Caucasians have the lowest rate among all four documented race/ethnicities. Hispanic are slightly higher than Caucasians but still much lower than African Americans. Figure 18 displays the total number of diagnosed cases of Chlamydia in the Upstate PHR. As shown in the bar graph African Americans have a greater number of cases of Chlamydia than any other race/ethnicity. African Americans account for 52% of the total number of cases diagnosed in the Upstate PHR.

Figure 17: Average Rate per 100,000 of Chlamydia in the Upstate PHR by Race/Ethnicity, 2019

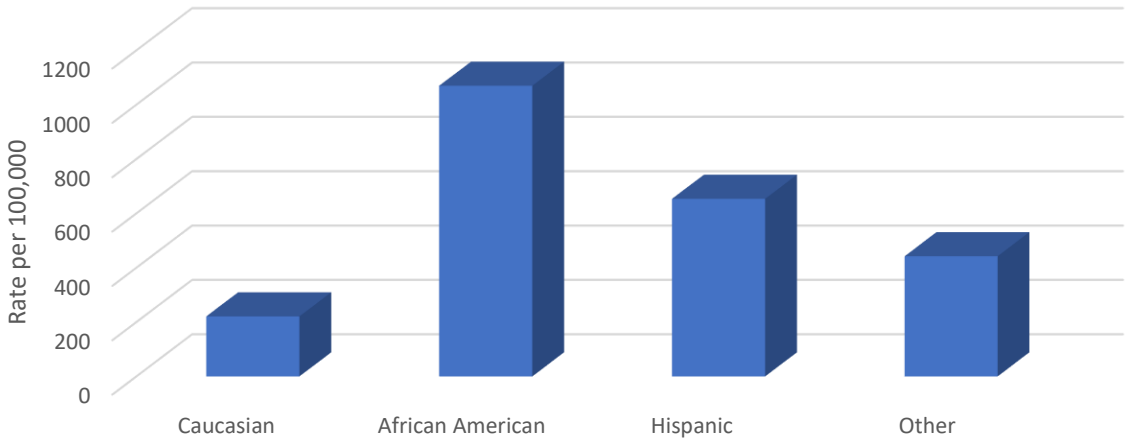
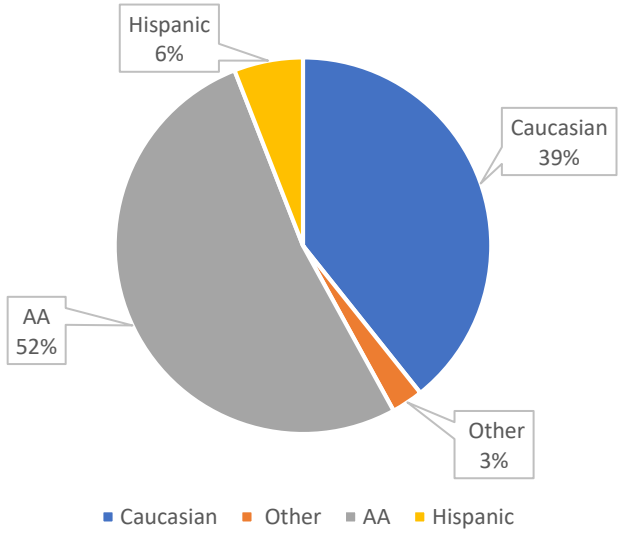


Figure 18: Cases of Chlamydia by Race in the Upstate PHR, 2019



Gonorrhea

Figure 19 displays the total cases of Gonorrhea by county as well as the rate per 100,000 based on that county's population. Among the counties in the Upstate PHR, Greenville County has the largest number of cases (1,260). However, Cherokee has the greatest rate among all counties (464.2 per 100,000) with Union County having the second-highest rate (377.1 per 100,000). Three counties exceed 600 documented cases of Gonorrhea in 2019 in the Upstate PHR (Anderson, Greenville, and Spartanburg).

Figure 19: Upstate PHR New Cases of Gonorrhea by County (2019)

County	Count	Rate per 100,000
Abbeville	62	252.8
Anderson	605	298.7
Cherokee	266	464.2
Greenville	1,260	240.7
Greenwood	176	248.6
Laurens	175	259.3
McCormick	21	221.9
Oconee	131	164.7
Pickens	227	178.9
Spartanburg	820	256.4
Union	103	377.1
Total	3,846	N/A
Average	350	269.4

Gonorrhea by Sex at birth

Figure 20 displays data on the rate of Gonorrhea by county and by sex at birth. Within the Upstate PHR the rates between both sexes at birth are approximately equal. Women in six of the 11 counties in the Upstate PHR have a higher rate than men. In Figure 21, a pie chart shows more cases are occurring among women (50%) than among women. However, the raw count is much closer to equal and does not reflect a significant sex at birth disparity as Chlamydia previously displayed.

Figure 20: Rate of Gonorrhea per 100,000 in the Upstate PHR by Sex at birth, 2019

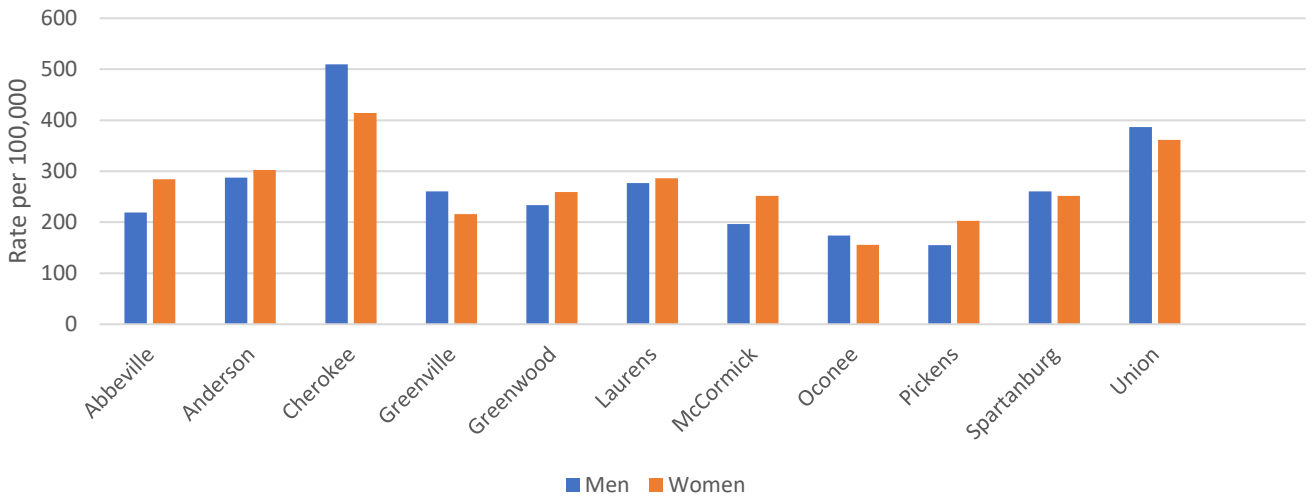
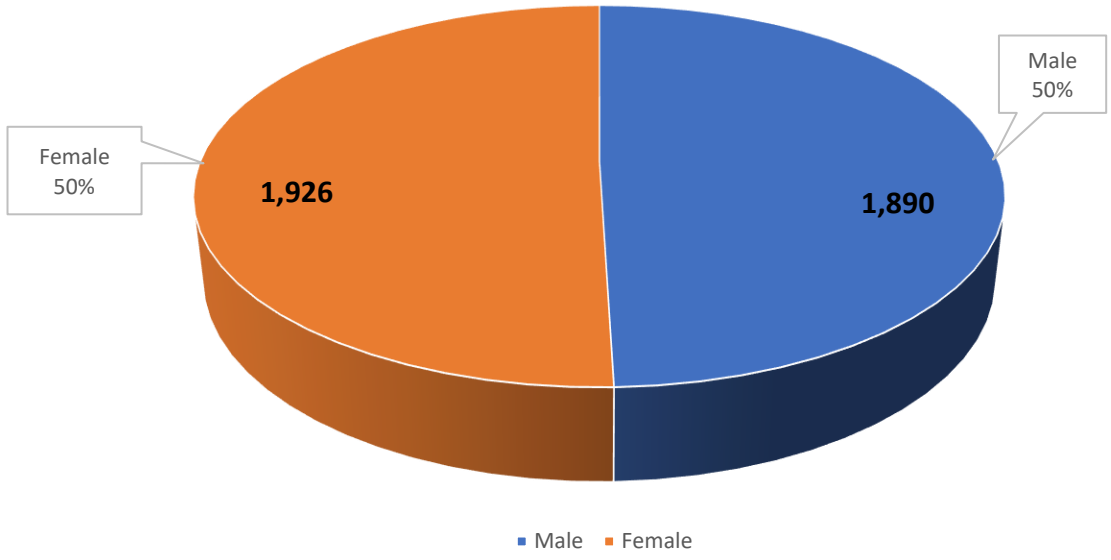


Figure 21: Gonorrhea Cases in the Upstate PHR by Sex at birth, 2019



Gonorrhea by Race/Ethnicity

Figure 22 shows the average rate per 100,000 cases of Gonorrhea by race/ethnicity in the Upstate PHR. The graph below details a large disparity relative to race/ethnicity. African Americans have six times the rate of Gonorrhea cases compared to Caucasians in the Upstate PHR. Hispanics have the lowest rate of all race/ethnicity. Caucasians and Other races are higher than Hispanics, but still much lower than African Americans. Figure 23 displays the total number of diagnosed cases of Gonorrhea in the Upstate PHR. As shown in the bar graph African Americans have a greater number of cases of Gonorrhea than any other race/ethnicity. African Americans account for 56% of the total number of cases diagnosed in the Upstate PHR.

Figure 22: Average Rate per 100,000 of Gonorrhea in the Upstate PHR by Race/Ethnicity, 2019

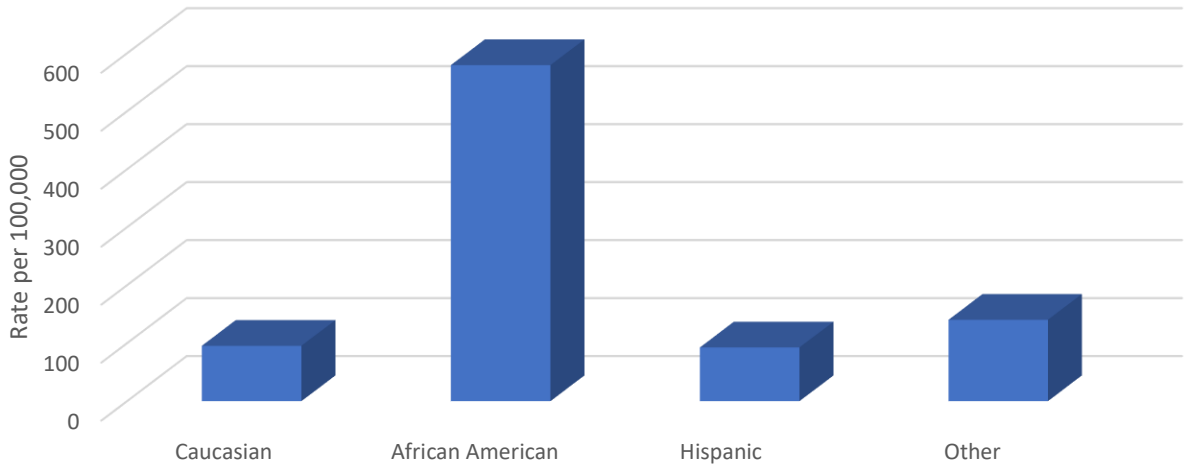
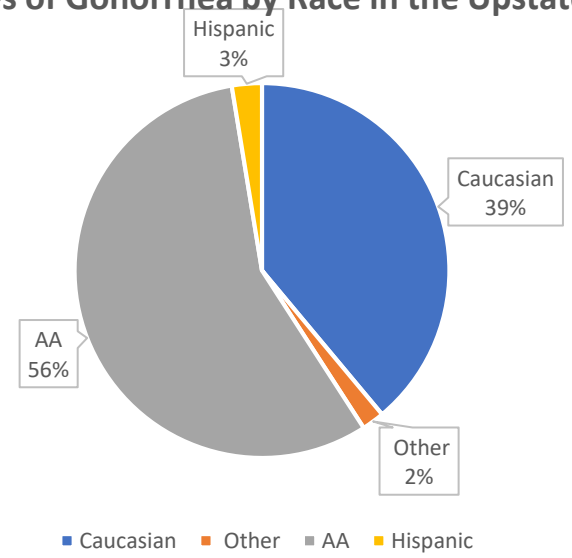


Figure 23: Cases of Gonorrhea by Race in the Upstate PHR, 2019



Syphilis

Figure 24 displays the total cases of Syphilis by county as well as the rate per 100,000 based on that county's population. Among the counties in the Upstate PHR, Greenville has the largest number of cases (126). However, Greenwood has the greatest rate among all counties (45.2 per 100,000) with Anderson having the second-highest rate (27.6 per 100,000), but with a much smaller total case count.

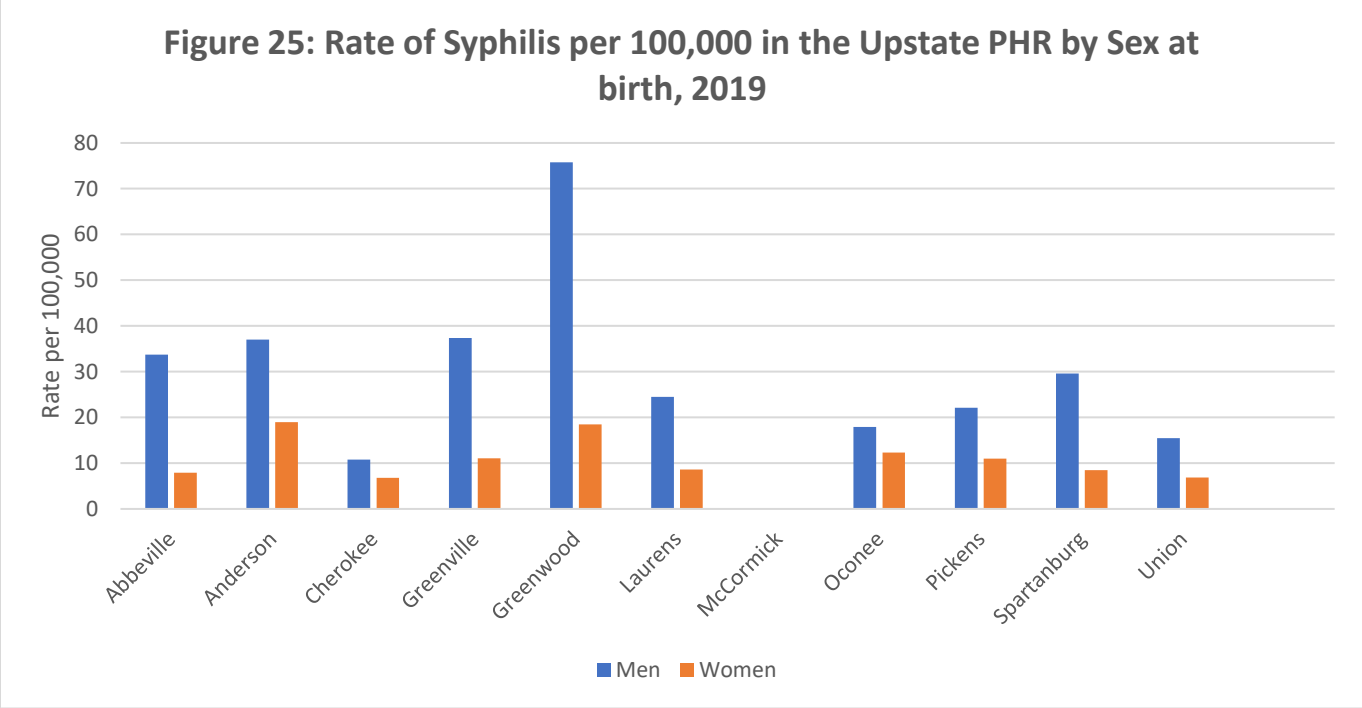
Figure 24: Upstate PHR New Cases of Syphilis by County (2019)

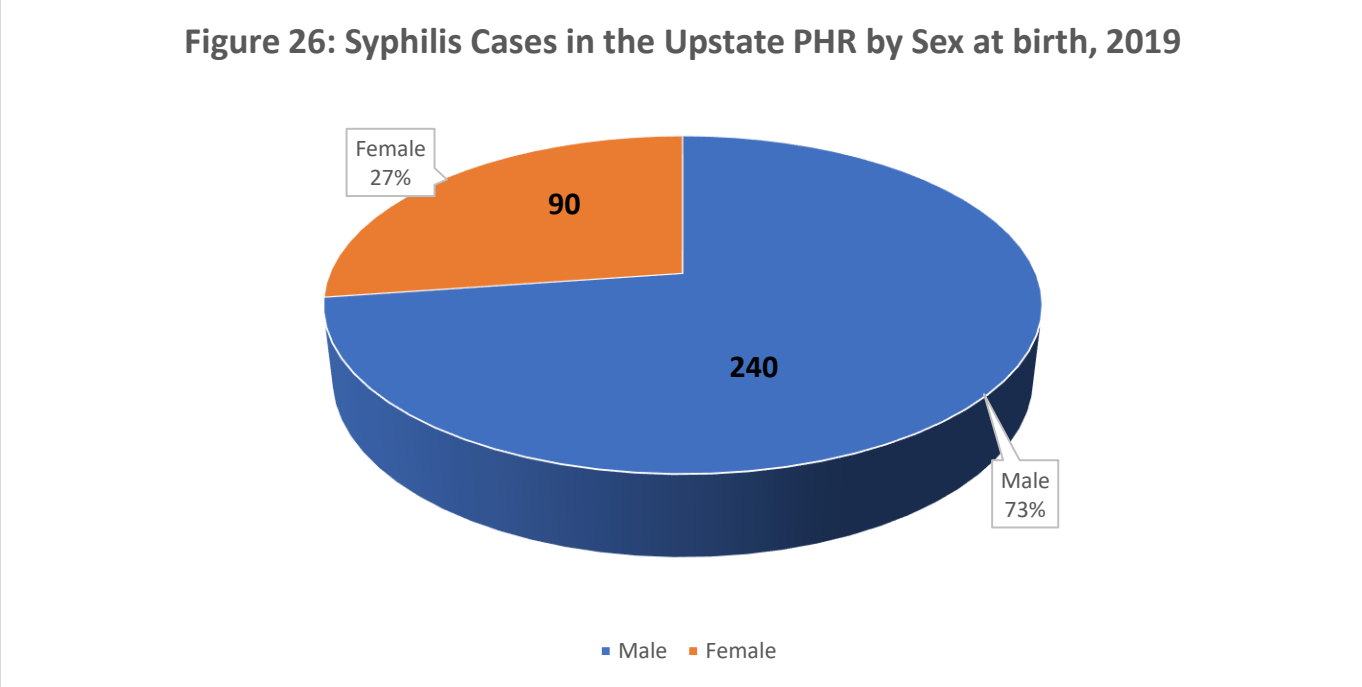
County	Count	Rate per 100,000
Abbeville	<5	20.4
Anderson	56	27.6
Cherokee	<5	8.7
Greenville	126	24.1
Greenwood	32	45.2
Laurens	11	16.3
McCormick	N/A	N/A
Oconee	12	15.1
Pickens	21	16.5
Spartanburg	61	19.0
Union	<5	11.0
Total	>322	N/A
Average	32	20.4

Counties with less than 5 new cases of HIV do not have their counts displayed due to a CDC small cell suppression rule, of not reporting counts <5.

Syphilis by Sex at birth

Figure 25 displays data on the rate of Syphilis by county and by sex at birth. Within the Upstate PHR the rates for men are higher in all 10 counties with reported cases. In Figure 26, a pie chart displays throughout the Upstate PHR that more cases are occurring among men (73%) than among women.





Syphilis by Race/Ethnicity

Figure 27 shows the average rate per 100,000 cases of Syphilis by race/ethnicity in the Upstate PHR. The graph below details a large disparity relative to race/ethnicity. African Americans have more than three times the rate of Syphilis cases compared to Caucasians in the Upstate PHR. The rate among Other races is almost six times higher than Caucasians in the Upstate PHR. Figure 28 displays the total number of diagnosed cases of Syphilis in the Upstate PHR. African Americans and Caucasians have a greater number of cases of Syphilis than Hispanic and Other races with both races having more than 40% of the case count. African Americans account for 45% of the total number of cases and Caucasians account for 46%.

Figure 27: Average Rate per 100,000 of Syphilis in the Upstate PHR by Race/Ethnicity, 2019

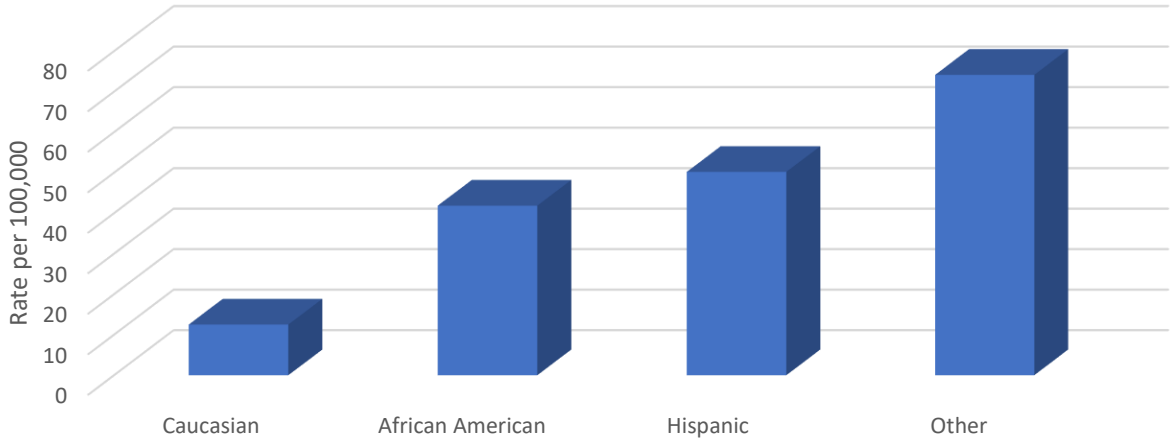
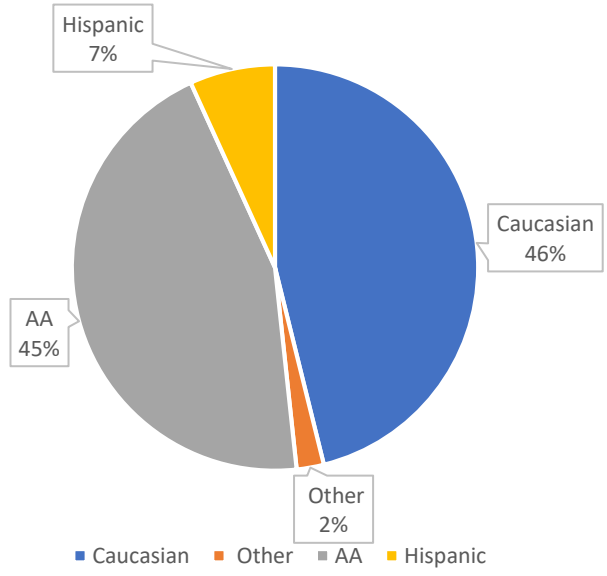


Figure 28: Cases of Syphilis by Race in the Upstate PHR, 2019



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1. Norma S. Harris, Anna Satcher Johnson, Ya-Lin A. Huang, Dayle Kern, Paul Fulton, Dawn K. Smith, Linda A. Valleroy, H. Irene Hall (2019). Vital Signs: Status of Human Immunodeficiency Virus Testing, Viral Suppression, and HIV Preexposure Prophylaxis — United States, 2013–2018 CDC Morbidity and Mortality Weekly Report, Early Release Vol.68

Appendix A

Methodology

The following describes the methodology used to obtain the statistics contained in Figures 1 through 3. Percentages are calculated by taking the number of individuals in a group diagnosed with a new case of HIV and is divided by the total of all groups. For example, in Figure 1, 79% is obtained by 176 / 224 = 0.79 x 100 = 79%. Rates are calculated per 100,000 people. An incidence is calculated such as: (Total New cases of HIV / Total population) x 100,000. The rate indicated in the total row is the average rate by county. This however is not the rate for the Region as a whole. This rate is for Counties to compare themselves to the rest of the region. The combined categories of American Indian/Alaskan native, Asian, Native Hawaiian/Other Pacific Islander, and multiple races comprise less than two percent of the total population so are grouped into a category of “Other”.

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